AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-5. (Canceled)

Claim 6. (Currently Amended) A synthetic nucleic acid molecule comprising a sequence of nucleotides that encodes a human HER2ECDTM protein as set forth in SEQ ID NO:14, the synthetic nucleic acid molecule being codon-optimized for high level expression in a human cell, wherein the HER2ECDTM protein comprises only the extracellular and transmembrane domains of the human HER2 protein.

Claim 7. (Original) The synthetic nucleic acid molecule of claim 6 wherein the sequence of nucleotides comprises the sequence of nucleotides set forth in SEQ ID NO:9.

Claim 8. (Original) A vector comprising the nucleic acid molecule of claim 6.

Claim 9. (Currently Amended) ~~A~~ An isolated host cell comprising the vector of claim 8.

Claim 10. (Original) A synthetic nucleic acid molecule comprising a sequence of nucleotides that encodes a variant human HER2ECDTM polypeptide that has at least 90% identity to the amino acid sequence of SEQ ID NO:14, which may include up to N_a amino acid alterations over the entire length of SEQ ID NO:14, wherein N_a is the maximum number of amino acid alterations, and is calculated by the formula

$$N_a = X_a - (X_a Y),$$

in which X_a is the total number of amino acids in SEQ ID NO:14, and Y has a value of 0.90, wherein any non-integer product of X_a and Y is rounded to the nearest integer prior to subtracting such product from X_a., wherein the sequence of nucleotides is codon-optimized for high level expression in a human cell.

Claim 11. (Canceled)

Claim 12. (Currently Amended) A process for expressing a human HER2ECDTM protein in a recombinant host cell, comprising:

(a) introducing a vector comprising the nucleic acid of claim 6 into a suitable isolated host cell; and,

(b) culturing the host cell under conditions which allow expression of said human HER2ECDTM protein.

Claims 13-24. (Canceled)